

species with a known broad physiological climate response curve, and use prescribed fire to reduce susceptibility to high-intensity, large disturbances. All these management approaches are included in the action alternatives that have been developed for the Jim's Creek Savanna Restoration project.

IV. Monitoring Plan

Based upon the issues identified during the scoping process and used in the design of the alternatives, the following conditions are recommended to be used as a guide for monitoring key components of the project, should an action alternative be selected for implementation. Not every project on the Middle Fork Ranger District can be fully and formally monitored. The following items should be strongly considered for evaluation and review should this project or any portion thereof be selected for formal monitoring in the Willamette National Forest monitoring program.

A. Success of Restoration: –

- Monitor the health and response of legacy oak and pine to verify that they respond as expected to the restoration of historic conditions;
- General leave tree survival and vigor to determine if they respond as expected to release and to verify the need for artificial snag replacement;
- Degree of grass re-establishment; also all native forbs, including cultural plants, to document the rapidity of vegetation reestablishment to determine replanting need and for more accurate future soil erosion modeling;
- Amount of natural pine regeneration, to determine if supplemental planting is needed;
- Success of oak planting and growth of seedlings to determine if additional planting is needed and to help determine when prescribed maintenance underburning can begin;
- Effectiveness of slash disposal to determine if Forest Plan levels were achieved;
- Soil temperature during slash disposal to determine if that activity creates any detrimental soil conditions;
- Noxious weed population changes – in meadows, plantations and restored savanna to verify the need to do additional eradication;
- Vigor of understory vegetation after maintenance burning to determine the effects of frequent underburning;

- Effectiveness of maintenance burning in terms of conifer exclusion to determine if there is a need to do hand control of young conifers;
- Effects of maintenance burning on native and non-native vegetation to determine the effects of frequent underburning and whether prescribed underburning is a successful technique to reduce non-native vegetation.

B. General:

- Spotted owl, barred owl and peregrine falcon status and occupancy to determine if assumptions used in this analysis were correct;
- Continue wildlife exclosure browse pressure monitoring (USDA, 2004) to determine the long-term effects of elk grazing on grass reestablishment;
- Resurvey streams to see if any changes in stream class occur to see if a low tree density translates to increases soil moisture and/or elevated water tables;
- Implement annual breeding bird surveys to document the effects of savanna restoration on bird species abundance;
- Follow up small mammal, butterfly, and herptile surveys to document the effects of savanna restoration on species abundance;
- Class IV streambed/bank failure, down cutting to determine if the restoration causes any change in channel stability;
- Soil movement after fire, in particular whether or how much sediment enters stream channels to verify the validity of soil erosion assumptions made in the analysis.

V. Consultation and Coordination

The Forest Service consulted the following individuals, Federal, State, and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment:

A. Interdisciplinary Team Members:

The following disciplines comprised the core Interdisciplinary (ID) Team for the Jim's Creek Savanna Restoration Project analysis:

Dick Davis - wildlife biologist

Mike Sheehan - fisheries biologist

David Murdough - soil scientist

Bev McCully - timber sale specialist

Tim Bailey – silviculturist, NEPA specialist, team leader

Jennifer Lippert - botanist

Carol Winkler/ Cathy Lindberg - archaeologist

Chris Hays - fuels management specialist

Jane Kertis - fire ecologist

May Lee Sayer - engineer

This ID Team did most of the field work and analysis but also consulted with various other resource specialists, as mentioned below, as needed and as determined by ground conditions.

The following Middle Fork District or Willamette Forest personnel were directly consulted during this analysis, and/or submitted reports as part of the analysis of the proposed actions:

- Recreation Forester
- Hydrologist
- Geotechnical Specialist
- Certified Silviculturist
- Contracting Specialist
- Logging Systems Specialist

B. Federal, State, and Local Agencies:

The following Federal and State government agencies were contacted at various points during project development. This contact consisted primarily of field trip and/or meeting attendance.

USDI Fish and Wildlife Service

USDI National Marine Fisheries Service

Oregon Department of Fish and Wildlife

Oregon State Historic Preservation Office.

In addition, the Cities of Oakridge and Westfir received scoping documents regarding this project.

C. Tribal Governments:

The Cow Creek Band of the Umpqua Tribe of Indians, the Confederated Tribes of the Grand Ronde, The Confederated Tribes of the Warm Springs Reservation, the Confederated Tribes of Siletz, and the Klamath Tribes were all sent various document relating to this project, including the scoping letter and this environmental assessment. All the above tribes were invited to a number of field trips and meeting related to the project. Representatives of the Grand Ronde confederation visited the project area on two separate occasions. Both those visits included a comprehensive review and discussion of the purpose and needs for action and the proposed actions. The Grand Ronde, Silz, and Kalmath Tribes have expressed general interest in and support of this proposal.

D. General Public Consultation

As mention in Chapter I, the public has been consulted throughout the development and analysis of this project. A total of ten public field trips and six public meeting and presentations were consulted prior to development of the proposed action. An electronic mailing list of approximately 80 names of meeting participants and other interested parties was created during the development of this project. Interdisciplinary meeting notes and various documents prepared during project development were mailed to this list.

VI. Contents of the Project Analysis File

The following documents and reports were prepared as part of the analysis for the Jim's Creek Savanna Restoration Project. These documents are on File at the Middle Fork Ranger Station Westfir, Oregon phone (541)782-2283.

- Fisheries/Watershed Report (Murdough, et. al., 2005)
- Silvics Background Paper and Silviculture Prescription (Bailey, 2005b)
- Terrestrial Wildlife Report (Davis, 2006a)
- Biological Evaluations/Assessments: terrestrial fauna (Davis, 2006b), fisheries (Sheehan and Sims, 2005), and botanical (Lippert, 2005b); including letters of consultation from the US Fish and Wildlife Service and National Marine Fisheries Service;
- Project Review for Heritage Resources form
- Financial Analysis (Bailey, 2005c)

- Fire and Fuels Report and Prescription (Hays, 2005)
- Recreation and Scenics Report (Bailey, 2005d)
- Botany Report (Lippert, 2005a)
- Fire Ecology Report (Kertis, 2005)
- Public Comments/Correspondence
- Implementation Plan

VII. LITERATURE CITED

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